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| **You should create a new document using the naming convention LabXX-MUid.docx (example: Lab13-johnsok9.docx).**  **Objective**: The objective of this exercise is to:   1. Understand database queries 2. Understand the php programming construct 3. Write php rest interface   **Submit**: screenshots, your html file and a link to your web page  You **may** discuss this with your fellow students or the instructor. |

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| **Name:** | **Andrew Boothe** |

# Part #1: Create the weather table

*Estimated time: 15 minutes*

**Exercise:**

* Using phpliteadmin as in the previous lab.
* Create a new table (weather)
  + DateTime – datetime
  + Location – text
  + MapJson – text
  + WeatherJson - text
  + Copy the “Query used to create this table” from the phpliteadmin

**QUERY:** CREATE TABLE 'weather' ('DateTime' DATETIME, 'Location' TEXT, 'MapJson' TEXT, 'WeatherJson' TEXT)

# Part #2: Create a setWeather routine

*Estimated time: 15 minutes*

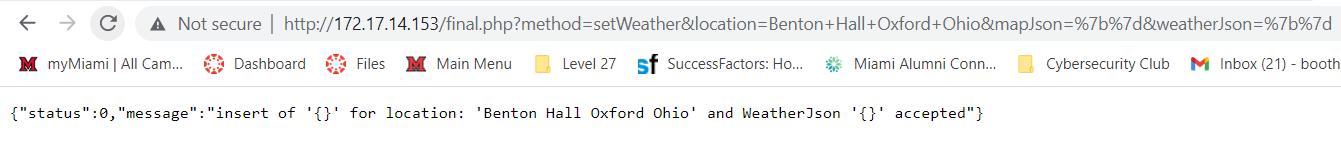
**Exercise:**

* Edit (vim/nano) the file final.class.php in /var/www/html.
  + Make a copy of the existing set routine and call it setWeather.
  + Remove the numeric check for the value
  + Change the input arguments to setWeather to location, mapJson and weatherJson.
  + Rewrite the insert routine to use the weather table and the input arguments. Set the dateTime field to CURRENT\_TIMESTAMP.
* **Verify using the following call**

[http://ip/final.php?method=setWeather&location=Benton+Hall+Oxford+Ohio&mapJson={}&weatherJson={}](http://ip/final.php?method=setWeather&location=Benton+Hall+Oxford+Ohio&mapJson=%7b%7d&weatherJson=%7b%7d) (Use your IP)

Verify the data was entered correctly by looking in phpliteadmin

(do an sql select)



A picture containing text

Description automatically generated

# Part #3: Create the getWeather rest method

*Estimated time: 15-30 minutes*

**Exercise:**

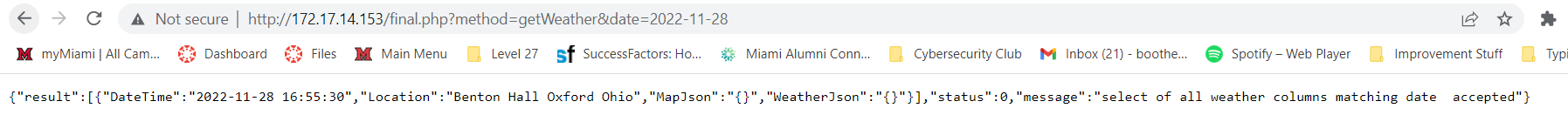
Edit the file final.class.php in /var/www/html.

* Create the getWeather rest interface
  + You need to create the function
  + I suggest copying and pasting the setWeather function as a starting point
  + Arguments (update the function arguments)
    - $date = date field
  + Returned value
    - All elements of weather file that match the requested date
  + SQL
    - Call GET\_SQL (same calling sequence as EXEC\_SQL, but it returns an array of results, keyed by field names)
  + Query command
    - $retData[“result”] = GET\_SQL("select \* from weather where date like ? order by date”, $date . “%”);
    - **Reminder. Do NOT copy/paste from word with smartquotes into php (will not work out well)**
* Update the return message with appropriate words for both good and error situations

**Test it by querying**

<http://ip/final.php?method=getWeather&date=YYYY-MM-DD>

(replace YYYY-MM-DD with today’s date)

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# Reminder: You can look for php errors in the following

If your call to the php doesn’t work or shows a 500 server error, you have a php error.

1. Check the piece of code you just edited: final.class.php
   1. php final.class.php
   2. if good – should give NO response
   3. if a response – it’s an error
2. Check the web server output
   1. sudo tail /var/log/apache2/error.log
3. Continuous check of the web server output (until you press ctrl-c)
   1. sudo tail -f /var/log/apache2/error.log

# Part #4: Gitlab OPTION 2 (https)

*Estimated time: 10 minutes*

**Exercise:** Connect your gitlab to your ubuntu instance

1. Sign into gitlab at <https://gitlab.csi.miamioh.edu/users/sign_in>  using your miami uniqueid and password, verifying your account is ready. Stay logged in.
2. Create a new project in gitlab
3. Log into the ubuntu machine using ssh from ceclinux
4. Get the https clone commands and COPY
5. On ubuntu instance
   1. Cd /var/www/html
   2. Sudo git clone (paste https clone here)
      1. Enter your Miami username and password
   3. Cd into newly created project directory
   4. Pwd (make sure you are in the new directory)
   5. Copy files from ..
      1. Cp ../\* .
   6. Sudo chown -R ubuntu .
   7. Git add .
   8. Git commit -a
      1. May ask you to put in your email and user – if so, follow the instructions
      2. Only email is required put in your muid)
      3. **git config --global user.email** [**MUID@miamioh.edu**](mailto:MUID@miamioh.edu)
      4. **git commit -a**
   9. Git push

# SUBMIT:

* Screenshot
  + Query for create table
  + Some verification that your rest insert from step2 worked
    - Phpliteadmin query showing new data
  + Rest service getWeather json response
    - (must include web address and good json response)
  + Something showing git is done
* php code (may be pasted or attached as a file)
  + final.class.php (this file only)

Graphical user interface, text, application

Description automatically generated